

RURAL FUEL PRICING IN ALASKA

A SUPPLEMENT TO THE 2008 ATTORNEY GENERAL'S GASOLINE PRICING INVESTIGATION

I. Introduction.

In the fall of 2008, the Alaska Attorney General completed an investigation of gasoline pricing in Alaska. The investigation was initiated following an unusually high spread between Alaska retail gasoline prices and prices in the lower 48 states. The investigation looked at gasoline prices across the state, but focused primarily on Railbelt communities served by Alaska refineries. In January 2009, the attorney general released the results of that investigation, which concluded that gasoline prices did not appear to be the result of illegal conduct between refiners, suppliers, or retailers of gasoline. Instead, the unusually high prices apparently resulted from structural characteristics of the Alaska markets, coupled with unprecedented volatility in crude oil prices.¹

In response to the investigation, members of the Alaska Legislature sought additional review of the pricing of fuel products in rural parts of the state not served by the road system. Along with gasoline, a concern was raised about the high cost of heating fuel. In response to the Legislature's concern and pursuant to the mission of the Governor's Rural Action Subcabinet, established by Administrative Order No. 247 to research, among other things, the high cost of energy in rural Alaska, the attorney general initiated an investigation into the pricing of fuel in rural Alaska² to examine how prices are established and whether these prices are the result of illegal conduct. This supplemental report contains the attorney general's findings. The Attorney General's Office will continue to review these issues and the impact of fuel pricing on rural Alaska.

II. Executive Summary.

A. The Challenges of Fuel Delivery in Rural Alaska.

Delivering fuel to rural areas of Alaska is complicated and expensive. There is no comparable delivery model anywhere in the world. Fuel typically must be delivered by either barge or plane. It is transported thousands of miles

¹ See 2008 Alaska Gasoline Pricing Investigation; Attorney General's Report, January, 2009, at: <http://www.law.state.ak.us/pdf/press/2008GasolinePricingReport.pdf>.

² Heating oil, diesel, and gasoline are the primary fuels used in rural Alaska.

through extremely inhospitable conditions. Weather delays often disrupt delivery schedules. Delivery windows are narrow for parts of the state where barges have access to river deltas for only three or four months of the year. Volumes are very small. Storage facilities and the necessary connecting hoses and pipelines in some remote locations are inadequate and dilapidated. Arrangements for the delivery of fuel must be made months in advance and require significant financial commitments from communities that might not be able to pay for the fuel. The Environmental Protection Agency and other federal agencies mandate specialized equipment to transport fuel over water – including, as of 2015, double-hull vessels – and separation of ultra-low sulfur fuel from other fuel products. Fuel Spill Contingency Plans (C-Plans) must be maintained and equipment kept available to respond to a potential spill.

B. Wholesale Pricing.

Given these conditions, it is no surprise that fuel in rural Alaska is expensive – indeed, some of the most expensive in the country. Yet, despite these challenges, fuel manages to reach even the most remote parts of the state. The suppliers of fuel to most parts of rural Alaska are transportation companies that charge for transporting fuel from the refinery to its customers. The transportation charge must cover the capital cost of the assets used to deliver the fuel (tugs and barges, storage tanks, associated equipment to load, unload, etc.), personnel to operate the assets (including salaries, food, housing, insurance benefits), fuel to run the tugs, regulatory requirements for spill prevention and control, insurance, and risk. Transportation and storage costs must be spread across the volume of fuel sold by the supplier. The price per gallon must cover all costs and provide a return on invested capital.

Most wholesale pricing fluctuations throughout the year are not the result of changes in the transportation cost, although these costs do change periodically. Instead, pricing variances are typically the result of the changing wholesale fuel price from the refiner. Depending on when a supplier receives fuel from the refinery, the loaded cost of a barge full of fuel can vary significantly.

Based on the information provided to us for the period under review, and considering these delivery conditions and costs, our investigation concluded that these wholesale prices, although certainly high, appear primarily driven by high delivery, storage, and other logistical costs. We did not find evidence of illegal conduct among the suppliers of fuel. Taking into account the cost of delivery and other logistical challenges, the average rate of return on the capital invested by wholesale fuel marketers was unremarkable.

C. Retail Pricing.

After fuel is delivered to local retailers, it is marked up for retail sale to consumers. The amount of mark-up varied greatly from region to region and community to community. In some communities, the mark-up on heating fuel was only marginally above the wholesale price. In others, the mark-up was more than 100%. It is difficult to account for the variance in pricing policies among the diverse retailers that sell fuel. In communities where there is only one viable retailer, consumers pay the price set by that retailer.

In several communities in Western Alaska, we found examples of retailers relatively close to each other geographically, with similar wholesale prices for fuel and similar volumes of usage, but substantially different retail prices. We were not able to obtain detailed information about overhead costs for most retailers, so it is unclear why retail fuel pricing varies so widely in what appear to be similarly situated communities.

Although the average price for fuel in rural Alaska in 2009 was below 2008 levels, retail pricing practices across rural Alaska are diverse, and pricing in some areas reflects unique circumstances in the community. There appear to be several justifiable reasons for retail mark-ups. Retail operations in rural Alaska are of a significantly smaller scale than they are in more urban areas. Accordingly, costs associated with these operations must be spread over smaller volumes, which contribute to higher prices. Other explanations for some retail pricing mark-up practices may include:

1. Several communities have received new or restored bulk fuel storage facilities as a result of Denali Commission funding. As a condition of receiving these facilities, facility owners are required to submit a plan that includes provisions to reserve a certain amount of revenue from the sale of fuel to pay for future maintenance and eventual replacement.³ This reserve requirement has added some amount to the price of fuel in communities with Denali Commission-funded storage facilities, even though the addition or upgrade might have helped reduce wholesale delivery costs.

2. In some villages, fuel appears to have been sold at a loss in prior years, resulting in increased prices in more recent years to make up for a deficit. Community pressure to reduce fuel prices occasionally has been successful during economic downturns, apparently based on the hope that losses can be recouped

³ We are uncertain whether this “reserve fund” is actually maintained and accounted for by storage facility operators.

when the economy rebounds. Unfortunately, economic conditions have not improved, and fuel retailers find themselves in a difficult financial position that requires raising fuel prices significantly above “normal” margins to recover from insufficient prices in prior years.

3. Another observed cause of increased pricing is the failure to order fuel in time for barge delivery, requiring much more costly air transportation. This has happened when villages failed to obtain financing in time to place a fuel order. Proper management and accounting by rural communities is an essential part of keeping retail prices from escalating. Additional training on such issues could be helpful in this regard.

4. Some communities have experienced natural disasters, such as flooding, which also can affect fuel pricing. Early river freeze-ups that prevent barge delivery, thus requiring air transportation, also contribute to temporary price hikes.

The conclusion reached in the Attorney General’s 2008 Gasoline Pricing Investigation is that retail margins among gasoline stations in competitive urban markets are some of the lowest in the country, while the refiners that supply this market enjoy significant market control and higher margins, which contributes to overall higher prices. By contrast, competition among the few suppliers of fuel to rural Alaska appears to limit substantial mark-ups by wholesale suppliers once delivery and other logistical costs are taken into account, but a lack of retail competition in certain areas enables retailers to have substantial ability to mark-up retail prices, although as noted above, there may be justifiable reasons for doing so.

In parts of Hawaii, the only state with comparable fuel delivery and logistical challenges, retail fuel prices were relatively comparable to the high prices seen in areas of rural Alaska.

D. Potential Solutions.

Although this study is primarily focused on factors driving the high price of fuel in rural Alaska, potential solutions to this pressing challenge are also briefly examined. The logistical and other high cost market factors that result in high retail fuel prices pose a challenge, but are not insurmountable.

Larger storage facilities in some areas could reduce the need to make two barge trips a year. Consolidation of storage facilities to create a single, common delivery point for several villages would accomplish the same purpose. For example, the City of Kwethluk recently received a new, higher-volume Denali

Commission tank farm that eliminated the need for two deliveries a year. This may help reduce the wholesale cost of fuel to Kwethluk.

The Denali Commission has spent nearly \$1 billion in the last decade on projects in rural Alaska, including 193 bulk fuel projects.⁴ These projects have included building or upgrading storage tank facilities. The Denali Commission has recently identified areas of the Yukon and Kuskokwim rivers that need upgrades to assist in the delivery of fuel by barge.⁵ Proposals include consolidation of marine fuel headers to a single landing site, improvement of shore side access to barges, installation of mooring points and gravel pads, dredging, and repairs to existing facilities. If undertaken, this work may help lower delivery costs.

Continued coordination and consolidation of buying power among retailers in rural Alaska, such as found in buying cooperatives like the Alaska Village Electric Cooperative (AVEC), can help with lower purchasing prices for wholesale fuel. Fuel prices also might be reduced through the education of fuel buyers, distributors and retailers in rural communities on such matters as how to efficiently manage storage facilities, control inventories and schedules, and coordinate purchases to avoid the erratic swings in fuel pricing caused by missed deliveries, or the under pricing of fuel.

Conservation of energy will also help lower fuel demand and reduce the annual fuel costs to rural consumers. Efforts by state and federal agencies to increase the energy efficiency of homes in rural Alaska and efforts to upgrade power generation facilities should result in lower fuel costs.

Alternative energy projects are currently being tested in many parts of rural Alaska and could also result in the displacement of diesel fuel for energy needs. Continued efforts to explore and implement these projects should have an impact on reducing demand for and therefore the price of fuel in rural Alaska.

Regulatory and statutory solutions have also been considered. Regulation might reduce the retail price of fuel in some areas but could increase it in others. Regulation would require a tremendous amount of resources, and regulatory orders would be challenging to enforce. The cost of regulation would ultimately be absorbed through fuel prices, and would be spread across limited volumes. Statutory requirements that require disclosure of the retail pricing components

⁴ See Denali Commission Project Database at <http://www.denali.gov/>.

⁵ See <http://www.denali.gov/>.

may lend some transparency to fuel pricing, and may have the effect of lowering prices in some communities.

III. Key Findings.

- Wholesale delivery costs to most parts of rural Alaska are high as a result of complicated scheduling, challenging geography, very small volumes over which to spread costs, and regulatory requirements for delivery.
- Based on the information provided for the period under review, high wholesale prices in rural Alaska appear to be driven by high delivery, storage, and logistical costs.
- Taking into account these high delivery, storage, and logistical costs, the average rate of return on invested capital for wholesale suppliers was unremarkable.
- The wide disparity in fuel prices within certain regions across rural Alaska is primarily the result of pricing differences among local retailers.
- Retail margins are the result of conditions that vary among communities. Retail operations in rural Alaska are of a significantly smaller scale than they are in more urban areas. Accordingly, costs associated with these operations must be spread over smaller volumes, which contribute to higher prices.
- Bringing down the high cost of fuel in rural Alaska will be a challenge, but continued efforts in conservation, education, alternative energy development and infrastructure upgrades might produce positive results.
- While this study does not categorically conclude there have been no illegal practices in rural wholesale and retail fuel pricing, investigators found no evidence of such illegal activity.

IV. Investigation Methodology and Protocol.

To gather pricing data from suppliers and retailers of fuel in rural Alaska, the attorney general issued Civil Investigative Demands to the four main suppliers of fuel to Alaska's rural communities: Crowley Marine, Delta Western, Harbor Enterprises Inc., d/b/a Petro Marine, and Petro Star. These suppliers provided thousands of pages of confidential documents concerning their pricing histories, purchase prices, contract terms, financial performance, and supply volumes for all rural customers.⁶ Key personnel from each of these companies were interviewed about pricing policies and factors that contribute to the delivered price of fuel.⁷ The suppliers were cooperative with our investigation.

The Attorney General's Office contacted over 75 rural communities and retailers to obtain pricing information for both heating fuel and gasoline. Interviews were also held with Meera Kohler, CEO of the Alaska Village Electric Cooperative (AVEC); Mike Marsh, the federal inspector general of the Denali Commission; Corrine Eilo, the director of administration for the commission; and Chris Mellow, the program manager at the Alaska Energy Authority (AEA). These groups and individuals were very helpful to our investigation, and we thank them for their cooperation and assistance.

The Attorney General's Office also retained Barry Pulliam, senior economist and managing director with Econ One Research, Inc., to assist in the analysis of pricing, financial and market information. We also consulted with Nick Syzmoniak at the University of Alaska Institute of Social and Economic Research (ISER).

V. Discussion.

For discussion of Alaska's antitrust and other laws that apply to the pricing of goods and services, please see the Attorney General's 2008 Gasoline Pricing Report.⁸ As noted in that report, there is no law in Alaska that limits the price a seller can set for goods or services. Prices are determined by the fundamental economic principles of supply and demand. The only time prices can be illegal is when they are the result of collusion, "price fixing," or the illegal use of monopoly

⁶ "Rural" is used in this report to mean areas of Alaska not served by the road system, and includes Western and Southeast Alaska, Northern Alaska, the Aleutians (Southwest Alaska), and the Gulf of Alaska (including Kodiak).

⁷ Information obtained from the suppliers is confidential under Alaska law.

⁸ See footnote 1.

power. For the period covered, our investigation did not uncover evidence of illegal conduct among the suppliers or retailers of fuel in rural Alaska.

A. Fuel Delivery Costs and Logistics.

Rural Alaska accounts for approximately 20% of total fuel consumption in the state.⁹ Fuel is delivered to most rural areas by barge. Every village, however, presents unique challenges, and the fuel delivery process cannot be generalized for rural Alaska. The following explains the delivery method for different regions around the state. In every region, the average price of fuel for 2009 was below 2008 levels.

i. Western and Interior Alaska.

This is the largest, most complicated and most rural area for fuel delivery in Alaska. It includes communities from Bristol Bay north to Barrow and off of the road system. Fuel is delivered by barge to all communities in this area that are accessible by water. This includes coastal communities and communities along navigable river waterways. The remaining communities must receive fuel by air, which is considerably more expensive.¹⁰ Air delivery, however, accounts for a relatively small amount of fuel delivered in Western and Interior Alaska.

There are two primary suppliers of barge delivered fuel to Western and Interior Alaska: Crowley Petroleum Distribution Company and Delta Western, Inc. Air transportation is provided primarily by Everts Air Service. Ruby Marine, a small barge operator, has also started delivering fuel to communities along the middle and upper Yukon River.

The equipment and assets necessary for delivering fuel in this area are specialized. Purchases by utility companies account for the majority of fuel sales. About 75% of all fuel in this region is purchased through the bidding process. The Alaska Village Electric Cooperative is the largest bulk purchaser of fuel, and negotiates the purchase of fuel for 53 village utilities. The Western Alaska Fuel Group (WAFG) is another buying group that negotiates the purchase of fuel for its members. Both AVEC and WAFG select the supplier of their fuel as a result of bidding. Once selected, the successful bidder enters a two- or three- year contract for supplying fuel. Contract terms generally include a cost for the fuel that is

⁹ Western (including the Aleutians), Interior, Northern and Gulf of Alaska account for approximately 75% of rural fuel consumption, while Southeast accounts for the remaining 25%.

¹⁰ In some cases, where a village is relatively close to the airport, fuel delivery via air can be more economical than barge delivery, but these conditions are not common.

indexed to a specific market and a transportation charge. Historically, the fuel cost has been tied to a reported rack price published by the Oil Price Information Service (OPIS) for the Northwest, typically Seattle. More recently, some bids are using spot price indexes as reported in Platt's, a global company that publishes daily market data for energy resources.

The Norton Sound Economic Development Council (NSEDC) also provides fuel-purchase assistance to its members. The NSEDC Consolidated Bulk Fuel Program was administered for the third consecutive year in 2008. Through this program, NSEDC acts as a purchasing agent on behalf of participants by coordinating orders, issuing the request for proposals to fuel suppliers, evaluating the proposals, and awarding the contract. NSEDC staff then serves as a single point of contact between the fuel supplier and the participants.

Bidders must have access to the necessary equipment and storage facilities to deliver fuel economically and profitably. There are two primary components involved: (1) the tug and barge, and (2) storage facilities. There are also two primary kinds of barges required to serve this market: (1) deep water (or "line haul") barges that can hold several million gallons of fuel, and (2) smaller barges capable of navigating shallow coastal and up-river locations, called "shallow draft" barges. Storage facilities can be owned either by the supplier (all main suppliers have storage facilities in most of the markets they serve), or by the customer.

Most fuel delivered to Western and Interior Alaska comes from refiners in Alaska. Bulk fuel is purchased by the barge company, loaded into line haul barges and then brought to Western Alaska for delivery to the customer. Some customers, including a number of villages on the coast, have storage tanks that can be accessed directly by a line haul barge. Other customers can only be reached by shallow draft barges. To make shallow draft deliveries, fuel must be transferred to a shallow draft barge directly from a line haul barge (called lightering), or from a storage tank.

To maximize the efficiencies of delivering fuel, it is necessary for a supplier to own, or have access to, line haul barges, shallow draft barges, and storage facilities in key locations. Without all these elements, it is difficult to compete in this market. Currently, only Crowley and Delta Western operate these kinds of assets in Western Alaska, with the exception of small volumes of fuel being delivered by Ruby Marine, a relatively new entrant to the market, along the Yukon River from as far south as Mountain Village to as far north as Fort Yukon.

The City of Bethel, one of the largest in Western Alaska, acts as a storage hub that facilitates the delivery of fuel by shallow draft barges to villages on the

Kuskokwim River and surrounding coastal communities. Crowley owns all of the storage facilities in Bethel: two tank farms with a combined capacity of about 14 million gallons. Under a consent agreement with the state, Crowley must provide Delta Western with four million gallons of storage capacity in Bethel at a competitive rate.¹¹ Line haul barges cannot get to the dock facilities in Bethel fully loaded. Some fuel must be lightered to smaller barges before the larger vessels can dock. The City of Bethel owns the fueling dock in Bethel and charges a fee for fuel that moves across the dock.

Communities in Norton Sound, including Nome and villages on the Yukon River, take deliveries directly from line haul barges, or from shallow draft barges that lighter directly from line haul barges. There is storage capacity at Nome, St. Michael and Stebbins that facilitates deliveries to surrounding communities. There are four fuel storage facilities in Nome – two owned by Crowley, with a combined capacity of about five million gallons; one owned by the City of Nome, with a capacity of 2.5 million gallons; and one owned by Bonanza Fuel, with a capacity of 2.5 million gallons. There is a storage tank in St. Michael owned by Crowley with a capacity of 1.5 million gallons. A new storage facility was recently funded by the Denali Commission in Stebbins, just eight miles away.

Communities in Kotzebue Sound and the surrounding area receive fuel directly from line haul barges and shallow draft barges, depending upon their location. Crowley has a six-million-gallon tank farm in Kotzebue, the northernmost facility owned by Crowley. Navigating to Kotzebue is possible for only about 90 days every year. Deep-water barges must stop 16 miles short of Kotzebue, then must be lightered to smaller barges for delivery to the tank farm. Crowley keeps a barge in Kotzebue year-round for this purpose. The company owns a fleet of trucks in Kotzebue for delivery to local customers. Crowley sells heating fuel, AV gas, motor gas, and jet fuel in Kotzebue, but only at wholesale.

Bristol Bay communities along the coast, including Togiak, Dillingham, and Naknek, are able to receive fuel from line haul barges, but fuel is lightered to smaller barges for inland deliveries. Delta Western and the Bristol Alliance both own storage facilities in Dillingham. The Bristol Alliance buys fuel from one of the suppliers and sells from its terminal at rack rates, and also makes retail deliveries. Delta also sells fuel in Dillingham almost exclusively at retail. Delta owns a gasoline station and supplies gasoline to another station in town. Crowley makes deliveries in Togiak directly to customers who own storage facilities. The

¹¹ The Attorney General's Office continues to monitor the implementation of this agreement.

City of Dillingham owns the docking facilities in the city and charges a fee for fuel moved across its docks.

Just inland from Bristol Bay, Iliamna and surrounding communities not accessible by water receive fuel by air, or from the newly formed Iliamna Development Corporation (IDC). IDC brings fuel to Iliamna from Petro Marine in Homer via landing craft to Williamsport, then trucks the fuel to Iliamna over a road maintained by the Alaska Department of Transportation. From Iliamna, the fuel is transported by barge to villages around Iliamna Lake. Crowley also supplies fuel to Iliamna, but must fly fuel from Homer. Crowley and its predecessor, Yukon Fuel, used to deliver fuel to Iliamna by barge via the Kvichak River, but Crowley reports that water levels in the river have been too low for safe barge passage for a couple of years.

ii. Northern Alaska.

Northern Alaska villages receive fuel primarily from village corporations. Fuel is barged to coastal communities and flown to inland communities. The North Slope Borough subsidizes residential use heating fuel. This area also has its own local source of natural gas. The 2009 average price of heating fuel in the Northern region was about \$1.60/gallon – well below the average for other rural areas. This investigation did not focus on these areas.

iii. Southeast Alaska.

Nearly all of Southeast Alaska receives fuel by barge, and most locations are able to accept a line haul barge. Deliveries are made over longer periods of time, and inventories are replenished more frequently than locations in Western Alaska. Some areas have ice-free ports that can receive barge deliveries all year. Compared to other areas off the road system (with the exception of the Northern region), the average price of fuel is lower in Southeast than any other rural area in Alaska.¹²

The primary suppliers of fuel to the southeast are Delta Western and Petro Marine. Delta Western brings most of its fuel into the southeast by barge from Seattle, with occasional deliveries coming from the Tesoro Refinery at Nikiski. Fuel is generally delivered to storage facilities owned by the suppliers, and sold from the facility at wholesale rack rates, or delivered to customers for

¹² See Department of Community and Regional Affairs Report to the Director, Current Community Conditions: Fuel Prices Across Alaska, July 2009 Update at: http://www.commerce.state.ak.us/dca/pub/Fuel_Report_July_2009_web.pdf

retail sale. Petro Marine is the exclusive supplier to many locations around Southeast Alaska. It obtains fuel from the Pacific Northwest and Nikiski.

iv. Gulf of Alaska (including Kodiak).

The primary suppliers of fuel to Gulf of Alaska customers are Crowley, Petro Star, and Petro Marine. With few exceptions, fuel prices in this region are about the same as Southeast Alaska. Petro Star supplies most of the heating fuel in this area from its refinery in Valdez. Gasoline is supplied mostly from the Tesoro Refinery in Nikiski.

v. Southwest Alaska (Aleutians).

All suppliers provide fuel to Southwest Alaska. The average price of heating fuel along the Aleutians is comparable to Southeast Alaska. Fuel delivery can be made by line haul barge in several communities throughout the year. Because of the high demand for diesel to fuel commercial fishing and processing operations, large volumes of fuel move through the Aleutians, making it easier and more cost-effective to deliver to communities in the area.

B. Wholesale Pricing Practices.

Crowley, Delta Western, and Petro Marine are fuel transportation companies. None of them own refineries. Each must purchase fuel from a refinery or another supplier for delivery to its customers. These companies charge for transportation, delivery and storage of fuel. Most bulk fuel contracts recognize this by pricing fuel in two components. The first is the fuel cost, which is related to the actual cost paid by the shipper. This cost is based on a published market index, reported by either OPIS or PLATTS. The second component of the price is the transportation charge. The transportation charge must cover the capital cost of the assets used to deliver the fuel (tugs and barges, storage tanks, associated equipment to load, unload, etc.), personnel to operate the assets (including salaries, food, housing, insurance benefits), fuel to run the tugs, regulatory requirements for spill prevention and control, insurance, and risk.

For customers that purchase fuel directly from a storage facility, the fuel price also includes the capital cost of the facility, plus maintenance and operating expenses. Transportation and storage costs must be spread across the volume of fuel sold by the supplier. The price per gallon must cover all costs and provide a return on invested capital.

Most wholesale pricing fluctuations throughout the year are not the result of changes in the transportation cost, although these costs do change periodically.

Instead, pricing variances are typically the result of the ever changing wholesale fuel price from the refiner. Fuel prices change daily. Depending on when a supplier receives fuel from the refinery, the loaded cost of a barge full of fuel can vary significantly.

Complicating this analysis, fuel to most rural Alaska locations is not delivered on a continuous basis. Fuel is delivered once or twice a year in some locations. The price for the fuel stored in a storage tank does not change until the next delivery of fuel. Thus, fuel prices in some locations may remain static for some time, even a year or more. When a new supply of fuel is delivered, most customers will average the cost of fuel in the tank (either up or down) for resale purposes.

Our investigation included a review of the financial records of these wholesale suppliers. Based on the information examined for the period under review, the rate of return for these three suppliers did not appear excessive, and was consistent with typical returns in the fuel transportation industry. The financial performance of these companies appears to show they have not earned returns exceeding norms in a competitive market.

In summary, wholesale prices for these suppliers, although certainly high compared to the rest of the country, appear primarily driven by high delivery, storage, and other logistical costs. For the period under review, we did not find evidence of illegal conduct among these suppliers of fuel. Taking into account the cost of delivery and other logistical challenges, the average rate of return on the capital invested by wholesale fuel marketers was unremarkable

Petro Star owns refineries in Valdez and North Pole, as well as transportation and retail assets. Accordingly, it is difficult to determine its annual rate of return on invested capital from its financial statements associated with transportation and wholesaling of fuel only. Petro Star provides transportation and wholesale fuel services north of the Aleutians, where there are relatively few competitors. Its operations are in areas that are served by more companies, and for which there is less need for specialized equipment such as shallow draft barges, and where entry into the market is relatively easy, and buyers, notably the military, are relatively large and sophisticated. Given these market conditions, we would expect that it would be difficult for Petro Star or others to achieve excessive returns over time.

C. Retail Pricing Practices.

There are over 230 villages in rural Alaska, and in the time allotted for this investigation not all retailers in these villages could be contacted. Our focus was

on retailers for the 100 villages listed in the July 2009 Division of Community and Regional Affairs (DCRA) fuel pricing update. This report contained reported retail prices for heating fuel and gasoline along with retail supplier information. The communities with the highest and lowest prices in a particular region were contacted.

Retail pricing practices by rural communities vary widely. Local village councils or city governments often serve as retailers. In most locations, retailers add a specific amount to the wholesale price of fuel (e.g., cost + \$/gallon). In theory, this increased price covers the retailer's operating costs, including overhead, and provides an amount for profit. Our investigation revealed that retailer mark-up practices and amounts vary widely across rural Alaska. We were unable to obtain sufficient information from retailers about their overall cost structure to determine the actual percentage profit made in the communities we surveyed. The complexities and disparities in retail rural Alaska mark-ups and what may be driving these are examined below.¹³

In Dillingham, for example, there are two primary suppliers with their own storage facilities. This creates some limited competition. Despite this competition, prices may still seem high compared to surrounding communities that may have lower prices, even with only one retailer. Where two existing competitors have served the local market for many years, increasing market share by taking customers from a competitor in a captive small market is difficult. To do so, a competitor would have to lower its prices significantly – a move that would likely be matched by its rival. The competitor could not lower its prices below cost (this is a violation of antitrust law called predatory pricing). The two competitors would then end up selling a similar volume of fuel, but at a lower price. There is little incentive to do this if both competitors believe they can sell similar volumes at a higher price.

Operating and maintenance costs of the larger facilities, wharfage fees, and city taxes may account for some of the difference between retail prices in nearby communities. In addition, in areas where there is an over-supply of fuel capacity, competitors must address a somewhat less efficient, higher-cost operation. In a more competitive and larger market, consolidation or reduction in this capacity would be expected as suppliers attempt to reduce cost and gain market share. But where markets are limited, with little threat of additional competition, some ongoing cost inefficiency is not surprising. Given this structure, it is not surprising to find prices and profit margins that are higher than more competitive

¹³ It should be noted that we cannot disclose the confidential pricing information obtained from most villages we contacted, nor can we disclose the confidential pricing information provided to us by the suppliers.

markets would allow. This does not necessarily mean there is collusion or illegal behavior occurring in these markets. Rather, this result is also consistent with economics of small-market operations served by few competitors. And while it is possible that collusion or other illegal conduct is occurring, our review has not uncovered evidence of this type of behavior.

In some markets, we found that retail margins were high. Some retail prices were marked up over 100% from the wholesale price. We could not obtain detailed information from retailers about their costs for storing and delivering fuel, or other expenses, so we cannot determine actual net profits, or whether this retail mark-up is excessive. But as a percentage, some retailers are enjoying gross margins that are higher than other surrounding areas that sell less fuel. These margins could not always be attributed to small volumes or apparent overhead expenses.

Our investigation also found that in some areas where retailers were relatively close to each other, there was no apparent justification for the different retail prices. We identified some retailers within 30 miles of each other that received fuel from the same supplier at roughly the same price. Yet, the retailer with more than twice the volume of sales had a retail price that was over \$1.50/gallon higher than the nearby retailer that sold much less volume. We could not obtain more detailed information about the overhead costs associated with delivering fuel in these communities, but given the difference in volumes of fuel sold, we cannot explain the difference between the retail prices of fuel.

In some Southwest Alaska communities, we found extremely low retail margins. Some retailers were marking up fuel by only 10% on relatively small volumes of fuel.

There are several villages around the Illiamna Lake area that receive fuel from Crowley. Fuel was historically barged up the Kvichak River from Bristol Bay and stored in a facility owned by Yukon Fuel Company. Crowley purchased this facility in 2005 as part of its acquisition of Yukon. In the last couple of years, the water level in the river has been too low for barge deliveries, and Crowley has been flying fuel to Illiamna from Homer. One village located just off Illiamna Lake reported a retail sales price for heating fuel of \$8.11 in July 2009. The cost of air delivery appears to account for most of this expense, and our review of Crowley's confidential financial statements suggests the cost was not excessive.

In 2009, the Illiamna Development Corporation (IDC) started a fuel delivery operation that has significantly reduced the price of fuel. IDC purchases fuel from Petro Marine in Homer and transports it to Williamsport. IDC loads fuel trucks in Homer and drives them on to a landing craft vessel that takes them to a

barge landing in Williamsport. IDC then drives the fuel over the Pile Bay Road to Iliamna. The primary customer of IDC, which makes this operation feasible, is the Pebble Mine.

IDC has experienced some difficulties in its first year of operation. The Pile Bay Road is a narrow right-of-way, and there is inadequate space for a staging area at the dock, where IDC had a 2,200 gallon fuel spill on its very first delivery. The old gravel road was not intended for transporting heavy loads of fuel, and there are few areas on the road for two-way traffic. The Department of Transportation continues to work on improving access to the road. This corridor is an important access route that allows fuel to be delivered at much lower prices than Crowley's current delivery via air. The Pile Bay Road is also an important transportation route for fishermen who haul boats across the road to Iliamna Lake, then down the Kvichak River to Bristol Bay. This avoids several days of travel for fishing boats accessing the Bristol Bay Fishery. DOT is currently working on a land swap that would allow development of a staging area at Williamsport, a key to making access to the road easier and safer. With some improvement to the port and road, delivery of fuel to this area via truck would become reliable, safe, and cost-effective.

We could include other examples for the retailers we were able to contact, but we have shown the widely varying retail pricing behavior in rural Alaska. It appears that some retailers are using fuel sales as a significant revenue source, which might be necessary to pay for public projects or other community needs. Because many smaller villages have no property or sales tax base, the only revenue available is from fuel sales. This pricing practice is not illegal, but it might explain why prices differ so greatly among retailers in neighboring villages. Other factors that contribute to higher retail prices are management and timing of fuel purchasing, high overhead (delivery and storage) costs, and low volumes.

D. Some Parallels with Other Barge Delivery Areas in the United States.

The only other places in the United States with comparable fuel delivery challenges are the smaller islands of Hawaii, such as Molokai and Lanai. Even these locations, however, enjoy significant advantages relative to much of rural Alaska. They are each served from Honolulu, only a few hundred miles away, and weather conditions permit delivery year-round. Nonetheless, these locations do have some similar characteristics to rural Alaska markets, which make them useful reference points.

The population of Molokai is about 8,000, somewhat larger than Bethel's 6,500. The population of Lanai is approximately 2,800, which is relatively close to some larger rural Alaska communities.

Both Molokai and Lanai receive gasoline and diesel fuel via barge from Honolulu (either directly, or indirectly from Maui). Barge deliveries are infrequent. Lanai receives its fuel once every 12-to-14 weeks. Molokai is served by two retail outlets, while Lanai is served by just one. While barge delivery is infrequent, there are few problems with fuel delivery, aside from the occasional storm.

Published articles on gasoline prices in Hawaii indicate that retailers on Molokai price their product based on the cost of the most recent delivery of fuel. In addition, these reports state that one of the retailers is the acknowledged "price leader," while the other simply follows suit. This type of pricing behavior is not illegal and, indeed, is not surprising in this type of market setting.

Examination of available retail prices for Molokai and Lanai showed that retail prices were on average \$1.30 and \$1.80/gallon over Honolulu prices during 2008 and 2009, respectively, with differences of as much as \$2.50/gallon at times.¹⁴ During the fall of 2008, prices on both islands exceeded \$5/gallon, with prices in Lanai City reaching more than \$5.50/gallon. By way of comparison, retail gasoline prices in Bethel (at Crowley's station) averaged \$5.10 per gallon in 2008 and were \$4.79 through August 2009.

The State of Hawaii attempted to regulate prices during a brief period beginning in 2005. Regulations were suspended after officials began to doubt their efficacy. Along with the regulations, the state published costs associated with barging from Honolulu and terminaling for Molokai and Lanai. These costs range between \$.30 and \$.40/gallon. Accordingly, the majority of the difference seen in gasoline prices on these islands and Honolulu occurs at the retail level. Again, this is not a surprising given the very small size and geographical isolation of these markets, along with the attendant costs and competitive conditions that naturally occur in markets of those sizes.

¹⁴ Retail price information on Molokai and Lanai is not published by the State of Hawaii. Prices are available from news sources for certain (but not all) periods during 2008 and 2009.

E. Other Factors Affecting Fuel Price.

1. Regulatory Requirements.

The year after the Exxon Valdez spill, Congress enacted the Oil Pollution Act of 1990 (OPA). The main characteristic of OPA '90 is the "drop dead" mandate for the lifespan of single hull tankers. OPA section 4115 divides tankers into two categories: The first category includes single-hulled vessels above 5,000 gross tons (grt). From 2005-2010, no category 1 vessel may operate after the age of 25 years, or 23 years for vessels over 30,000 grt unless they are retrofitted with double sides or bottom. (This buys an extra five years of life to allow a maximum possible category 1 phase-out date of 2015). The second category is for single-hulled vessels currently fitted with double sides or bottom. Any ship in this category may not operate after January 1, 2015 unless changed to double hull. Between 2010-2015 category 2 5,000-30,000 grt vessels will be phased out after age 30, while 30,000+ grt go at age 28. Vessels below 5,000 grt with double sides or bottom have no phase-out date. In the end, OPA hopes to rid the market of all single-hulled vessels over 5,000 grt by a final date of 2015.

Crowley and Delta Western both report that these regulations will have an impact on at least some of the vessels in their fleet this year. By January 2015, all vessels delivering fuel in Alaska will likely be double hull. The cost of this eventual change-over could impact fuel prices.

In January 2001 and in June 2004, the EPA finalized the Highway Diesel and Non-Road Diesel Rules which implement more stringent standards for new diesel engines and fuels. The rules mandate the use of ultralow sulfur diesel (ULSD) fuels with a sulfur content of 15 ppm in diesel engines, beginning in 2006 for highway diesel fuel, and in 2007 for non-road diesel fuel.

Because Alaska has unique geographical, meteorological, air quality, and economic characteristics, the state requested that June 1, 2010, be the deadline for conversion to ULSD. In October 2005, the EPA finalized a rule that requires rural areas of Alaska to transition all highway, non-road, locomotive, and marine diesel fuel to the ULSD standard starting on that date. The effect of this rule will require separation of all low sulfur diesel (LSD) from ULSD. This will require separate transportation, hoses, storage, headers, and associated equipment used to deliver these fuels. There will likely be a cost impact from this new requirement.

2. Buying groups: Alaska Village Electric Cooperative; Western Alaska Fuel Group; Norton Sound Economic Development Corporation.

There are several buying cooperatives consisting of member communities that pool their fuel purchases to maximize their buying power. By doing so, communities can purchase fuel in quantities large enough to receive discounts, and use the bidding process to obtain the lowest possible price. This strategy is more successful for some groups than others, depending upon the location and fuel requirement of each community.

The Alaska Village Electric Cooperative (AVEC) is the largest cooperative in Alaska, serving villages in Western Alaska.¹⁵ AVEC solicits bids for fuel to serve its member communities. The bid process is competitive, with the successful bidder obtaining a contract for two-to-five years. The bid solicitation generally contains requirements that fuel be priced in two components – a price for the fuel itself, and a price for the transportation service. Fuel price requirements are generally tied to posted prices contained in OPIS or Platts for the West Coast or Northwest. For example, bidders must quote a price for #1 Diesel as “Seattle OPIS plus \$.10” which means AVEC will be charged the posted OPIS price of #1 diesel at the time of loading plus \$.10 for transportation.

¹⁵ AVEC’s website notes the following:

AVEC service area is the largest in the world for a retail cooperative. We serve 53 villages stretching from Kivalina in the north to Old Harbor on Kodiak Island in the south, and from Gambell on St. Lawrence Island in the west to Minto in the east.

A stable power source enhances our lives. Although electric power in rural communities remains expensive, stable electric service has brought about positive improvements in health care, housing, schools, water and sewer systems, communications and helped economic growth.

AVEC is a private organization. We’re financed by loans from the Rural Utilities Service, United States Department of Agriculture in Washington, DC and financial assistance received from the federally-funded Denali Commission.

Every village has a say in how AVEC operates. Each village elects a delegate to represent their community at the Annual Cooperative Meeting held each March in Anchorage.

AVEC and the local governments operate as a partnership. The village governments hire the plant operators and oversee the day-to-day operation of the power generating and distribution plants.

We use more than 150 diesel generators. These produce electric power for our member villages, running a cumulative total of more than 400,000 hours per year. That is equal to nearly 950 trips by diesel truck around the world each year, or about 23 million road miles!

AVEC purchases five million gallons of fuel annually. The fuel is stored in bulk fuel tank farm facilities, many of which are being upgraded or completely rebuilt with money received from the Denali Commission.

Bids are also divided into areas, with different bidders often obtaining winning bids for specific areas. By controlling the terms and conditions of the bid solicitation, AVEC is able to obtain the best prices available from the limited suppliers that serve Western Alaska.

The Western Alaska Fuel Group (WAFG) is another cooperative that purchases fuel for its members, consisting of rural utilities. WAFG is much smaller than AVEC, with only about 10 member communities. Its model is similar to AVEC, in which the cooperative solicits bids on behalf of its members but requires the supplier to deliver the fuel directly to the customer.

The Norton Sound Economic Development Corporation (NSEDC), unlike AVEC and the WAFG, provides a variety of services to its members, including bulk fuel purchasing.¹⁶ In 2008, the program continued to expand in terms of the number of participants and the amount of fuel delivered. Twenty-one participants from fourteen communities received 929,802 gallons of Diesel #1 Heating Fuel and 287,926 gallons of Unleaded Gasoline delivered for a total cost of \$5,840,101. The fuel vendor was Delta Western, Inc

It is unclear whether this consolidated bulk fuel program results in savings to consumers, as community retailers are free to mark-up the fuel price as they wish. As NSEDC notes, the main benefit of the program is primarily accounting and advancing funds, which may result in some savings. As with AVEC and WAFG, fuel suppliers deliver the fuel directly to NSEDC members.

These consolidated buying groups provide some control over the price paid for fuel in Western Alaska. Generally speaking, economic theory predicts that

¹⁶ According to the NSEDC web site:

The Consolidated Bulk Fuel Program was administered for the third consecutive year in 2008. Through this program, NSEDC acts as a purchasing agent on behalf of participants by coordinating orders, issuing the request for proposals to fuel suppliers, evaluating the proposals, and awarding the contract. NSEDC staff then serves as a single point of contact between the fuel supplier and the participants.

The main attraction of this program is that NSEDC is responsible for all payments to the fuel supplier, offering participants payment plans payable directly to NSEDC. NSEDC does not charge interest or fees, resulting in additional savings for all participants. To be eligible, participants must be an entity located within one of NSEDC's member communities or Shishmaref that has sufficient fuel storage with a U.S. Coast Guard approved header and be a local fuel vendor, municipal or tribal government, or a native corporation.

consolidated buying should lower prices. Given the limited number of barge operators for the delivery of fuel, the bidding process provides additional leverage to smaller buyers and enhances competition among suppliers.

3. Denali Commission.

Since its creation, the Denali Commission¹⁷ has spent \$1 billion on rural Alaska projects, including 193 bulk fuel projects through October 2009. For fuel projects, funding from the Denali Commission is provided to either the Alaska Energy Authority (AEA) or the Alaska Village Electric Cooperative (AVEC), partners with the Denali Commission, who then undertake the work. All of the projects have been upgrades, construction, or improvements to fuel storage facilities in rural communities.

The Denali Commission website lists 204 other energy projects completed through October 2009. Some of these projects appear to be bulk fuel-related. Included are efficiency upgrades, alternative energy projects, intertie connections, heat recovery, line extensions, distribution projects and repairs.

These combined 397 bulk fuel- and energy-related projects have improved energy efficiency, safety, distribution, and environmental protection. In some areas, these projects have had a direct impact on the cost of energy.

Below are three examples of cost savings achieved through Denali Commission projects:

Kwethluk Tank Farm. Prior to Denali Commission upgrades, several small tank farms were scattered throughout Kwethluk that were not code-compliant, that lacked secondary containment for spills, and that had leaking pipes and fittings. In 2006, AEA constructed a new consolidated, code-compliant bulk fuel tank farm with storage capacity for 323,000 gallons of diesel and 116,500 gallons of unleaded gasoline, which can store enough fuel to sustain the community for one year. This allows one larger delivery instead of two smaller ones, lowering overall costs. The community of Kwethluk has 764 residents. The total cost of the

¹⁷ The Denali Commission's website states' the following:

“Created by Congress in 1998, the Denali Commission is an independent federal agency designed to provide critical utilities, infrastructure, and economic support throughout Alaska. In taking this step, Congress recognized the need for increased inter-agency cooperation and focus on Alaska's remote communities. Since its first meeting in April 1999, the commission is credited with providing numerous cost-shared infrastructure projects across the state that exemplify effective and efficient partnership between federal and state agencies, and the private sector.”

project was \$4,467,268.70. Spread across the 250,000 gallons of fuel consumed each year, this translates into a cost of \$0.89/gallon, assuming a 20-year life.

Savoonga Power Plant. Located on St. Lawrence Island, there are no roads in Savoonga. The 722 residents rely on diesel generation for power. The Denali Commission replaced the generators with new ones that contain a load-regulating function. During the first full month in operation, the new plant realized a 35% improvement in efficiency, saving over \$17,000 in diesel fuel. The total cost of the project was \$4,017,658.00. Spread across the 150,000 gallons of fuel consumed each year, this translates into a cost of \$1.34/gallon, assuming a 20-year life.

Toksook Bay Wind Turbines. Toksook Bay is a Yup'ik Eskimo community of 605 people located on the Bering Sea. It depends on diesel fuel for power generation. AVEC Engineers installed cutting edge wind technology to offset diesel consumption with three NorthWind 100kw-turbines on top of 108-foot Danwin towers. Increased capacity allowed tie-line construction to the nearby communities of Tununak and Nightmute. As a result, the two local generating plants closed, saving tens of thousands of dollars in operating expenses. Wind turbines in Toksook Bay, Selawik and Kasigluk displaced 99,191 gallons of diesel fuel, saving the communities \$453,000 in diesel generation cost. Total project cost was \$3,084,087.00.

Other projects have not resulted in energy or cost savings, but instead have replaced aging and sometimes leaking storage tanks with new ones that comply with current codes. Communities with a Denali Commission fuel storage facility are also required to reserve a portion of the fuel sales price in order to renovate and maintain the facility. This reserve has added 10% or more to the retail price of fuel in some communities.

4. Power Cost Equalization (“PCE”) and Other Subsidies.

The goal of the Alaska Energy Authority’s PCE program is to provide economic assistance to customers in rural areas of Alaska where the kilowatt-hour charge for electricity can be three-to-five times higher than the charge in urban areas of the state. PCE pays a portion of all kilowatt-hours sold by the participating utilities.

The Legislature established different functions for AEA and the Regulatory Commission of Alaska (RCA) under AS 42.45.100-170, which governs PCE program responsibilities. AEA determines eligibility of community facilities and residential customers and authorizes payment to the electric utility. Commercial customers are not eligible to receive PCE credit. Participating utilities are

required to reduce each eligible customer's bill by the amount that the state pays for PCE.

The RCA determines if a utility is eligible to participate in the program and calculates the amount of PCE per kilowatt-hour payable to the utility.

The original FY 2009 PCE appropriation was \$28,160,000. During a special session in the summer of 2008, the Legislature guaranteed full funding of the program and appropriated up to an additional \$23 million. Effective October 1, 2008, the power cost for which PCE is paid (the "*ceiling*") was raised from \$.525 to \$1 per kilowatt-hour for the remainder of FY 2009. The enactment of SB 88 extended the sunset for the \$1 cap indefinitely. Effective with the first billing period of the FY 2010, the base rate was also raised from \$0.1283 to \$0.1412. As of October 30, 2009, the estimated program cost for FY 2010 is \$36.16 million.

While PCE funding may reduce out-of-pocket electricity expenses for consumers, the program has created an opportunity for potential abuse of the system that could result in increased retail fuel prices. In communities where the retail price of fuel is the same as the price paid by the local utility, the PCE program could provide an incentive to increase the price of fuel. We identified a few isolated incidents where this kind of PCE abuse appears to be happening, but it was not widespread.

In addition to PCE, we are aware of another fuel subsidy provided by the Venezuela-based Citgo heating oil program. Since 2006, some communities in Alaska have participated in the program, which provides assistance to low-income families and Native American communities.¹⁸ In 2009, the program provided eligible families with a one-time delivery of 100 gallons of fuel. It is uncertain if it will continue this year. We were unable to obtain information about eligibility requirements, but we do know that some rural villages participated in the program.

While the Citgo program was providing assistance, recipients were entitled to 100 gallons of heating fuel, apparently at any cost. Participants would receive vouchers for the fuel that were accepted by local retailers. This could encourage retail sellers of fuel to artificially inflate the price of fuel to obtain a larger subsidy. We cannot confirm whether this actually occurred, or whether there is any control in the program to prevent this abuse. But we did hear about such practices in the

¹⁸ Information about the program can be found Citgo's webpage at: <http://www.citizensenergy.com/english/pages/OilHeatProgram>.

course of our investigation. If this was occurring, it might account for some of the retail pricing practices we observed.

5. Management/Training.

During our investigation, we became aware of information that suggests some retailers might not be pricing fuel appropriately, or not managing and operating facilities to maximize efficiency. We were unable to confirm whether any of this information is true. We understand that some retailers might have priced fuel below cost in prior years because of pressure from the community, creating a financial deficit that can only be alleviated by raising prices above otherwise normal levels in future years. Management and operation of retail fuel sales require training to ensure proper pricing, timely ordering, inventory control, maintenance, coordination with sellers, and proper accounting. Modern generation facilities also require training to maximize efficiencies. Failure to properly manage these operations will eventually lead to higher prices.

V. Conclusion and Potential Solutions.

Retail fuel pricing practices vary greatly in rural Alaska. In areas where fuel prices are unusually high, the retail margins are also very high. Our investigation revealed that the rates charged by suppliers for the period under review do not appear to be unreasonable and do not suggest anti-competitive practices on the part of wholesalers. Instead, retail margins by local fuel sellers account for much of the higher prices seen in many rural Alaska communities. We have no evidence that these margins are illegal. In fact, many of the retail pricing practices may be necessary given the high cost to store and deliver fuel that must often be borne by a small consumer base. Higher fuel prices are also expected in communities where fuel sales account for most of the revenue used to fund community projects.

For this investigation, we did not request or receive detailed information from any retailer that would allow us to isolate and analyze the factors in each community that contribute to retail pricing.

Because there is no legal restriction on how much a seller can charge, reducing retail fuel prices in some rural locations may be challenging. The following are some possibilities.

A. Infrastructure Changes.

The delivery of fuel to rural Alaska requires a tremendous amount of equipment, facilities, moorings, personnel, and capital. The diverse and

challenging conditions in rural Alaska, particularly Western and Interior Alaska, add significant cost to the fuel delivery process. In 2007, along with the U.S. Army Corps of Engineers, the Denali Commission completed a review and assessment of statewide barge landing sites to analyze barge mooring and fuel/freight transfer needs at Alaska's coastal and riverside communities. The Denali Commission listed 10 proposed projects as a result of the assessment; the report is available on its web site.

A coordinated effort between the Denali Commission, Crowley, Delta Western, and the Army Corps of Engineers aimed at improving barge landing facilities might help lower delivered costs of fuel.

Continued work on bulk fuel projects by the Denali Commission, AEA, and AVEC to upgrade and replace bulk fuel storage facilities also should help lower the delivered cost of fuel. Replacing smaller fuel storage facilities with larger facilities, to reduce the number of required deliveries and increase volume, has a direct impact on cost.

B. Coordination, Education and Training.

Continued coordination and consolidation of buying power among retailers in rural Alaska, such as found in buying cooperatives like the Alaska Village Electric Cooperative (AVEC), can help with lower purchasing prices for wholesale fuel. Education and training of fuel buyers and facility operators on the purchasing, scheduling, and pricing of fuel could help lower retail pricing by maximizing efficiencies in the timing of fuel purchases and proper pricing of fuel. Training personnel on operating efficiencies for generation plants and new tank facilities will also ensure optimum operational efficiencies.

C. Conservation.

Conservation projects and incentives to increase energy efficiency continue across the state. The Alaska Community Development Corporation Weatherization Assistance Program, funded by the Alaska Housing Finance Corporation and the U.S. Department of Energy, provides weatherization assistance to renters and homeowners throughout the state. The Rural Alaska Community Action Program, Tanana Chiefs Conference, and Interior Weatherization, Inc. also have weatherization programs in Alaska with varying eligibility requirements.

D. Alternative Energy.

The Division of Community and Regional Affairs reports an increased focus on alternative energy generation. The Rural Power System Upgrade Program, administered by AEA, provides funding to improve the efficiency of existing diesel generation systems, replace existing systems with more efficient designs, or fund heat recovery systems to reduce a community's energy needs. Along with the Denali Commission, AEA has funded feasibility studies, design assistance, and construction through the Alaska Alternative Energy Projects Program. In FY 2009, more than \$5 million was spent on 33 projects across the state in the areas of wind, hydro, biomass, solar, and geothermal power.

While aimed at power generation, these projects could have significant impacts on heating fuel consumption in rural communities. Increased and efficient power generation may provide an economical alternative to heating fuel.

E. Regulation/Statutory Changes.

The RCA has jurisdiction to regulate all public utilities in the state that are not otherwise exempt under AS 42.05.711.¹⁹ The statute contains several exemptions to the RCA's regulatory jurisdiction that make it unclear whether rural fuel retailers are subject to the Commission's jurisdiction.²⁰ Retail sellers of fuel in rural Alaska vary greatly in their ownership, method of sale, and company organization. If regulation was to be considered, statutory changes would be needed to ensure the RCA's authority.

Regulation would also provide several challenges. There are hundreds of villages with fuel retailers in rural Alaska. This alone would make regulation expensive, requiring significant resources. The regulatory process would also add cost to the regulated entity – a cost that would ultimately be recovered through higher fuel prices in some areas.

¹⁹ Alaska Statute 42.05.990(4)(E) defines a "public utility" to include "furnishing for distribution or by distribution petroleum products to the public for compensation when the consumer has no alternative in the choice of supplier of a comparable product and service at an equal or lesser price."

²⁰ . Alaska Statute 42.05.711(a) states "the provisions of this chapter do not apply to a person who furnishes water, gas or petroleum products by tank, wagon, or similar conveyance, unless the person is thereby supplying water, gas, petroleum, or petroleum products to a public utility in which the person has an 'affiliated interest.'" In addition, AS 42.05.711(b) provides that public utilities owned and operated by a political subdivision of the state are also exempt from rate regulation (but are subject to certification by the RCA).

Potential legislation could be drafted to require retail sellers of fuel in rural areas without competition to post (either publicly or on each invoice) the retail mark-up on fuel. The purpose of this legislation would be to inform the community of the amount of local retail mark-up, adding transparency to the retail price. Given that the most significant fuel price mark-ups tended to be at the retail level, this might encourage retailers in some areas to moderate prices.

Antitrust law, however, prohibits the disclosure of a company's pricing practices. This is considered the most sensitive competitive information a company owns, and disclosure to a competitor is illegal under current state and federal antitrust laws. The state can enact legislation that requires this disclosure, but it would need to be carefully tailored to avoid any anti-competitive impacts. The impact of requiring this disclosure is not limited to the retailer, but also affects the wholesaler. Wholesale competitors would easily be able to determine selling prices of its competitors. Some of this potential harm is offset by the current filing requirements of the PCE program. Utilities that receive PCE funding must make public filings that disclose the price paid for fuel by utilities in the PCE program. This information is available on the RCA's webpage.

F. Subsidization/Government Assistance.

Although not a preferred solution, Alaska can also consider subsidizing fuel in rural Alaska in the same manner it does with power. Alaska subsidizes the cost of power through the PCE program. In FY 2009, the program cost the state over \$36 million. The merits and success of the PCE program have been debated and are beyond the scope of this report. Subsidies may lower out-of-pocket costs, but can increase the demand for fuel, resulting in higher prices that would ultimately be absorbed by the state.

Other energy assistance available to rural Alaska included the Community Energy Assistance Program which disbursed over \$50 million to Alaska communities in 2008. The Low Income Home Energy Assistance Program provides assistance to low-income households to offset the high cost of home heating. The State's LIHEAP grant is administered by the Department of Health and Social Services, Division of Public Assistance, and is known as the Heating Assistance Program.